

WHAT IS CLAIMED IS:

1. A protocol processing system, comprising:
 2. a frame buffer controller to store data;
 3. a protocol terminator system coupled to the frame buffer controller to receive and transmit events;
 5. an event queue system coupled to the protocol terminator system to store the events in an event queue; and
 7. a protocol processing agent to process a protocol, the protocol processing agent having a first connection with the frame buffer controller and a second connection with the protocol terminator system, wherein the first connection transports the data between the protocol processing agent and the frame buffer controller, and the second connection transports the events between the protocol processing agent and the protocol terminator system.
2. The protocol processing system according to claim 1, further including a network interface connected to the protocol terminator system, the network interface providing a connection for the protocol processing system to a network.
3. The protocol processing system according to claim 1, wherein the protocol processing agent is a Secure Sockets Layer (SSL) system.
4. The protocol processing system according to claim 1, wherein the protocol processing agent is a Server Load Balancing (SLB) system.

1 5. The protocol processing system according to claim 1, wherein the protocol
2 processing agent is an Extended Markup Language (XML) system.

1 6. The protocol processing system according to claim 1, wherein the events include
2 at least one of an event type identification, a Transmission Control Protocol (TCP) pointer, a
3 frame buffer controller handle, a frame buffer controller length, and a frame buffer controller
4 prefetch.

1 7. The protocol processing system according to claim 1, wherein the data stored in
2 the frame controller buffer includes a header and a data portion.

8. The protocol processing system according to claim 1, wherein the event queue includes an event queue writer and an event queue reader for the protocol processing

9. A method of high-speed protocol processing, comprising:
 - storing data in a frame buffer controller;
 - transmitting an event to an event queue system from a protocol processing agent via a control plane;
 - storing the event in an event queue;
 - transmitting the event from the event queue to an event queue reader of the protocol processing agent; and

8 forwarding the event from the event queue reader to the protocol processing agent
9 via the control plane to process the event.

1 10. The method according to claim 9, wherein the protocol processing agent is a
2 Secure Sockets Layer (SSL) system.

1 11. The method according to claim 9, wherein the protocol processing agent is a
2 Server Load Balancing (SLB) system.

12. The method according to claim 9, wherein the protocol processing agent is an

Extended Markup Language (XML) system.

13. The method according to claim 9, wherein the event includes at least one of an

event type identification, a Transmission Control Protocol (TCP) pointer, a frame buffer controller handle, a frame buffer controller length, and a frame buffer controller prefetch.

1 14. The method according to claim 9, wherein the data stored in the frame controller
2 buffer includes a header and a data portion.

- 1 15. A protocol processing system, comprising:
 - 2 a machine-readable storage medium;
 - 3 machine-readable program code, stored on the machine-readable storage medium,
 - 4 having instructions to

5 store data in a frame buffer controller,
6 transmit an event to an event queue system from a protocol processing
7 agent via a control plane,
8 store the event in an event queue,
9 transmit the event from the event queue to an event queue reader of the
10 protocol processing agent, and
11 forward the event from the event queue reader to the protocol processing
12 agent via the control plane to process the event.

16. The protocol processing system according to claim 15, wherein the protocol processing agent is a Secure Sockets Layer (SSL) system.

17. The protocol processing system according to claim 15, wherein the protocol processing agent is a Server Load Balancing (SLB) system.

1 18. The protocol processing system according to claim 15, wherein the protocol
2 processing agent is an Extended Markup Language (XML) system.

1 19. The protocol processing system according to claim 15, wherein the event includes
2 at least one of an event type identification, a Transmission Control Protocol (TCP) pointer, a
3 frame buffer controller handle, a frame buffer controller length, and a frame buffer controller
4 prefetch.

1 20. The protocol processing system according to claim 15, wherein the data stored in
2 the frame controller buffer includes a header and a data portion.

1 21. The protocol processing system according to claim 15, wherein the event queue
2 system includes an event queue writer.

1 22. A Transmission Control Protocol (TCP) processing system, comprising:
2 a frame buffer controller to store data;
3 a TCP terminator system coupled to the frame buffer controller to receive and
transmit events;
4 an event queue system coupled to the TCP terminator system to store the events in
5 at least two event queues;
6 a first processing agent to process a first protocol, the first processing agent
7 having a first connection with the frame buffer controller and a second connection with
8 the TCP terminator system, wherein the first connection transports the data between the
9 first processing agent and the frame buffer controller, and the second connection
10 transports the events between the first processing agent and the TCP terminator system;
11 and
12 a second processing agent to process a second protocol, the second processing
13 agent having a third connection with the frame buffer controller and a fourth connection
14 with the TCP terminator system, wherein the third connection transports the data between
15 the second processing agent and the frame buffer controller, and the fourth connection

17 transports the events between the second processing agent and the TCP terminator
18 system.

1 23. The TCP processing system according to claim 22, further including a network
2 interface connected to the TCP terminator system, the network interface providing a connection
3 for the TCP processing system to a network.

1 24. The TCP processing system according to claim 22, wherein the first processing
2 agent is selected from the group consisting of a Secure Sockets Layer (SSL) system, a Server
3 Load Balancing (SLB) system, and an Extended Markup Language (XML) system.

1 25. The TCP processing system according to claim 22, wherein the second processing
2 agent is selected from the group consisting of a Secure Sockets Layer (SSL) system, a Server
3 Load Balancing (SLB) system, and an Extended Markup Language (XML) system.

1 26. The TCP processing system according to claim 22, wherein the events include at
2 least one of an event type identification, a transmission control protocol (TCP) pointer, a frame
3 buffer controller handle, a frame buffer controller length, and a frame buffer controller prefetch.

1 27. The TCP processing system according to claim 22, wherein the data stored in the
2 frame controller buffer includes a header and a data portion.

1 28. The TCP processing system according to claim 22, wherein the event queue
2 system includes an event queue writer, a first event queue reader for the first protocol processing
3 agent, and a second event queue reader for the second protocol processing agent.

1 29. The TCP processing system according to claim 22, wherein the first protocol is
2 selected from the group consisting of a Secure Sockets Layer (SSL) protocol, a Server Load
3 Balancing (SLB) protocol, and an Extended Markup Language (XML) protocol.

1 30. The TCP processing system according to claim 22, wherein the second protocol is
2 selected from the group consisting of a Secure Sockets Layer (SSL) protocol, a Server Load
3 Balancing (SLB) protocol, and an Extended Markup Language (XML) protocol.